Pulsed Cold Neutron Beam Performance on Flight Path 12 at LANSCE

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Flight path 12 at LANSCE has been assigned to fundamental nuclear physics experiments. The first experiment on this beamline is a measurement of parity-violating directional gamma-ray asymmetry in the $\vec{n}$+p→d+γ reaction. For this experiment the NPDGamma collaboration has built a pulsed cold neutron beamline. The FP12 m=3 supermirror neutron guide views a upstream/back-scattering partially-coupled cold hydrogen moderator. In this talk, we will describe the beamline and report our results for moderator brightness and neutron pulse shape. Measurement is compared to model calculation.

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